

Title 09
MARYLAND DEPARTMENT
OF LABOR
Subtitle 01 OFFICE OF THE
SECRETARY

09.01.12 Apprenticeship Maryland

Authority: Business Regulation Article, §2-105; Labor and Employment Article, §11-603(k); Annotated Code of Maryland

Notice of Proposed Action
 [22-308-P]

The Division of Workforce Development and Adult Learning proposes to repeal Regulations .01—.08 under **COMAR 09.01.12 Apprenticeship Maryland**.

Statement of Purpose

The Department proposes to repeal the Apprenticeship Maryland regulations under COMAR 09.01.12.01—.08 because the statute granting authority for the pilot youth apprenticeship program, Labor and Employment Article, §11-603, Annotated Code of Maryland, abrogated on June 30, 2018. The Department has partnered with the Maryland State Department of Education to issue a policy regarding the continuation of Apprenticeship Maryland. The Departments engaged in a formal policy development process with subject matter experts from each agency and other stakeholders to draft a policy which was then released for a public comment period, and ultimately resulted in a joint policy regarding Apprenticeship Maryland, the youth apprenticeship program.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Dylan McDonough, Policy Analyst, Maryland Department of Labor, Division of Workforce Development and Adult Learning, 1100 N Eutaw Street, Suite 108, Baltimore, MD 21201, or call 410-767-1890, or email to dylan.mcdonough@maryland.gov. Comments will be accepted through February 27, 2023. A public hearing has not been scheduled.

TIFFANY P. ROBINSON
 Secretary of Labor

Subtitle 12 DIVISION OF LABOR AND
INDUSTRY

Notice of Proposed Action
 [22-313-P-I]

The Secretary of Department of Labor proposes to:

- (1) Amend Regulations .02, .02-1, and .03 under **COMAR 09.12.50 Model Performance Code**; and
- (2) Amend Regulation .04 under **COMAR 09.12.51 Maryland Building Performance Standards**.

Statement of Purpose

The purpose of this action is to incorporate by reference the first edition of the most recent version of the following standards:

- (1) 2021 International Building Code;
- (2) 2021 International Plumbing Code;
- (3) 2021 International Residential Code for One- and Two-Family Dwellings;
- (4) 2021 International Mechanical Code;
- (5) 2021 International Energy Conservation Code; and
- (6) National Electric Code, 2020 Edition (NFPA 70).

As required by Public Safety Article, §12-503(b)(1)(iii), Annotated Code of Maryland, this action adopts modifications to the International Energy Conservation Code that allow for innovative approaches for compliance related to thermal energy code requirements by offering alternatives, including a “Maryland Alternative Prescriptive Compliance Path” that simplifies compliance for the industry and regulators in plain language and includes useful charts that provide equivalent or better energy performance. In addition, these same allowances for innovative approaches related to thermal energy code compliance are adopted for the International Residential Code for One- and Two-Family Dwellings.

Finally, this action updates references and removes redundant language in the Model Performance Code and the Maryland Building Performance Standards.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Mischelle F Vanreusel, Acting Deputy Commissioner, Department of Labor, Division of Labor and Industry, 10946 Golden West Drive, Suite 160, Hunt Valley, MD 21031, or call 410-767-2225, or email to dli.regulations+BC@maryland.gov. Comments will be accepted through February 27, 2023. A public hearing on the amendments will be held on February 7, 2023, at 9 a.m., at 10946 Golden West Drive, Suite 160, Hunt Valley, MD 21031.

Editor’s Note on Incorporation by Reference

Pursuant to State Government Article, §7-207, Annotated Code of Maryland, the following have been declared documents generally available to the public and appropriate for incorporation by reference:

- (1) 2021 International Building Code;
- (2) 2021 International Plumbing Code;
- (3) 2021 International Residential Code for One- and Two-Family Dwellings;
- (4) 2021 International Mechanical Code;
- (5) 2021 International Energy Conservation Code; and
- (6) National Electric Code, 2020 Edition (NFPA 70).

For this reason, they will not be printed in the Maryland Register or the Code of Maryland Regulations (COMAR). Copies of these documents are filed in special public depositories located throughout the State. A list of these depositories was published in 50:1 Md. R. 7 (January 13, 2023), and is available online at www.dsd.state.md.us. These documents may also be inspected at the office of the Division of State Documents, 16 Francis Street, Annapolis, Maryland 21401.

09.12.50 Model Performance Code

Authority: Public Safety Article, §12-201(f), Annotated Code of Maryland

.02 General.

A. (text unchanged)

B. Application.

(1) (text unchanged)

(2) For industrialized buildings approved by an approved testing facility under COMAR 09.12.52 after the effective date of these regulations:

(a) This chapter and the codes incorporated by reference apply to any approved building provided that construction begins [prior to] *within* 6 months after the Department’s adoption of the [2021] 2024 edition of the International Building Code; and

(b) The approved testing facility shall state in its approval letter to the Department and the manufacturer of the building:

(i) (text unchanged)

(ii) That approval will expire for a building unless construction begins [prior to] *within* 6 months after Department’s adoption of the [2021] 2024 edition of the International Building Code.

(3) For industrialized buildings approved by an approved testing facility under COMAR 09.12.52 prior to the effective date of these regulations, the previous version of this chapter and the [2015] 2018 International Building Code shall apply provided that construction begins prior to 6 months after the effective date of these regulations.

C.—D. (text unchanged)

.02-1 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference[, except as modified in Regulation .03 of this chapter].

B. Documents Incorporated.

(1) 2021 International Building Code (International Code Council), which is incorporated by reference in COMAR 09.12.51.04A(1) *and as modified in COMAR 09.12.51.04B.*

(2) [2018] 2021 International Plumbing Code (International Code Council)[.] *modified as follows:*

(a) *For industrialized building construction delete §404 and replace with COMAR 09.12.53 Maryland Accessibility Code; and*

(b) *For all other building construction, the plumbing code requirements and modifications adopted under Business Occupations and Professions Article, §§12-101—12-702, Annotated Code of Maryland, apply.*

(3) National Electric Code, [2017] 2020 Edition (NFPA 70), *except in Article 210.8(F) Ground-Fault Circuit Interrupter Protection for Personnel, Outdoor Outlets Exception include “and heating, air-conditioning, and refrigeration equipment that serve the dwelling.”*

(4) 2021 International Residential Code for One- and Two-Family Dwellings (International Code Council), which is incorporated by reference in COMAR 09.12.51.04A(2)[.] *and as modified in COMAR 09.12.51.04C.*

(5) [2018] 2021 International Mechanical Code (International Code Council).

(6) 2021 International Energy Conservation Code (International Code Council), which is incorporated by reference in COMAR 09.12.51.04A(3) *and as modified in COMAR 09.12.51.04D.*

(7) (text unchanged)

.03 Model Performance Code.

A. The standards incorporated by reference in Regulation .02-1 of this chapter[, and modified as follows,] constitute the Model Performance Code for building construction in the State[:].

[(1) For industrialized building construction:

(a) International Building Code with the following modifications:

(i) Chapter 1. Delete Section 101.2.1 Appendices and replace with the following:

101.2.1 Appendices: All the provisions in the Appendices are adopted as part of the IBC except those in Appendices A, B, D, E, and K;

(ii) Chapter 9. Add note to Section 901.1 Scope: Fire protection system requirements of Chapter 9 may be concurrently covered in the State Fire Prevention Code, Public Safety Article, §§6-101—6-202, Annotated Code of Maryland, and COMAR 29.06.01;

(iii) Chapter 10. Add note to Section 1001.1 General: Means of egress requirements of Chapter 10 may be concurrently covered in the State Fire Prevention Code, Public Safety Article, §§6-101—6-602, Annotated Code of Maryland, and COMAR 29.06.01;

(iv) Chapter 11. Chapter 11, related to accessibility requirements, is hereby replaced with the Maryland Accessibility Code set forth in COMAR 09.12.53;

(v) Chapter 24. The requirements for safety glazing set forth in Public Safety Article, Title 12, Subtitle 4, Annotated Code of Maryland, are in addition to Chapter 24, Section 2406, of the IBC related to safety glazing. In the event of a conflict between Chapter 24 of the IBC and the Annotated Code of Maryland, the requirements of the Annotated Code of Maryland prevail;

(vi) Chapter 30. The provisions of Chapter 30 of the IBC relate to elevators and conveying systems and are in addition to and not instead of the requirements set forth in Public Safety Article, Title 12, Subtitle 8, Annotated Code of Maryland. In the event of a conflict between the IBC and the Annotated Code of Maryland, the provisions of the Annotated Code of Maryland prevail;

(b) International Plumbing Code with the following modification: Delete all of §404.0 — the subject matter is covered by Maryland Accessibility Code, COMAR 09.12.53;

(c) National Electrical Code,

(d) International Mechanical Code;

(e) International Residential Code for One- and Two-Family Dwellings with the following modifications:

(i) Chapter 1. Delete the Section 102.5 Appendices and replace with the following: 102.5 Appendices: All the provisions in the Appendices are adopted as part of the IRC except those in Appendices E, J, and L;

(ii) Add to Section N1102.4.1.2 (R402.4.1.2): Except as provided for in the Simulated Performance Path listed in Section N1105 (R405);

(iii) Add to Section N1102.4.1.2 (R402.4.1.2): Except as provided for in the Energy Rating Index Compliance Alternative Section N1106 (R406);

(iv) Modify Table N1105.5.2(1) (R405.5.2(1)) for Air Exchange Rate line item under the proposed design add “not to exceed 5 air changes per hour with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for Standard Reference Design” after “The measured air exchange rate”; and

(v) Add exception to Section N1106.2 (R406.2): The maximum of 5 air changes per hour tested in accordance with Section N1102.4.1.2 (R402.4.1.2) may be used to determine the Energy Rating index score with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for ERI Reference Design;

(f) International Energy Conservation Code with the following modification:

(i) Add a note to Section C405.2.4 Specific Application Controls: For the new construction of hotels, each hotel guest room shall be equipped with a master control device in compliance with COMAR 09.12.51.04D(2);

(ii) Add to Section R402.4.1.2: Except as provided for in the Simulated Performance Path listed in Section R405;

(iii) Add to Section R402.4.1.2: Except as provided for in the Energy Rating Index Compliance Alternative in Section R406;

(iv) Modify Table R405.5.2(1) for Air Exchange Rate line item under the proposed design add “not to exceed 5 air changes per hour with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for Standard Reference Design” after “The measured air exchange rate”; and

(v) Add exception to Section R406.2: The maximum of 5 air changes per hour tested in accordance with Section R402.4.1.2 may be used to determine the Energy Rating index score with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for ERI Reference Design;]

[(g)] B. If [an industrialized building manufacturer] a builder desires to or has been requested to construct a building to the International Green Construction Code (IGCC) standards they may use the IGCC in addition to the other codes in [§A(1) with the following modifications:

(i) Chapter 1. Delete Section 101.4 Appendices and replace with the following: All the provisions in the appendices are adopted as part of the IGCC except those in the appendices C and D;

(ii) Chapter 3. Add following note to Section 302.1 Item 1: In Table 302.1, Select “Yes” for residential buildings as indicated in Exception 1 to Section 101.3; and

(iii) The §A(1)(g) does not preempt the authority reserved to local jurisdictions to regulate matters in the IGCC including land use, site placement, and other matters that do not affect the structure or design of the industrialized building; and] *this regulation.*

[(h)] C. (text unchanged)

[(2) For all other building construction:

(a) The International Building Code with modifications related to building standards, as adopted under COMAR 09.12.51.04;

(b) Plumbing Code requirements adopted under Business Occupations and Professions Article, §§12-101—12-702, Annotated Code of Maryland;

(c) National Electrical Code;

(d) International Mechanical Code;

(e) The International Residential Code for One- and Two-Family Dwellings with modifications related to building standards, as adopted under COMAR 09.12.51.04;

(f) International Energy Conservation Code with modifications related to building standards, as adopted under COMAR 09.12.51.04; and

(g) If a builder desires to or has been requested to construct a building to the International Green Construction Code (IGCC) standards they may use the IGCC in addition to the other codes in §A(2).]

[B.] D. (text unchanged)

09.12.51 Maryland Building Performance Standards

Authority: Public Safety Article, §§12-503 and 507(a)(2), Annotated Code of Maryland

.04 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference:

(1) [2018] 2021 International Building Code (International Code Council);

(2) [2018] 2021 International Residential Code for One- and Two-Family Dwellings (International Code Council); and

(3) [2018] 2021 International Energy Conservation Code (International Code Council); and

(4) 2012 International Green Construction Code (International Code Council, 500 New Jersey Avenue, N. W., 6th Floor, Washington DC 20001)].

B. Modifications to the International Building Code.

(1) (text unchanged)

(2) Chapter 1. [Delete] *Add to Exception in [the] Section 101.2 Scope [and replace with] the following:*

[(a) Exception: 1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code;]

[(b)] (a)—[(c)] (b) (text unchanged)

(3) Chapter 1. Delete the Section 101.2.1 Appendices and replace with the following:

101.2.1 Appendices: [All the] *The provisions in the Appendices C Group-U Agricultural Buildings, G Flood-Resistant Construction, and H Signs are adopted as part of the IBC [except those in Appendices A, B, D, E, and K].*

(4) Chapter 9. Add note to Section 901.1 Scope Fire protection system requirements of Chapter 9 may be concurrently covered in the State Fire Prevention Code, Public Safety Article, §§6-101—6-202.] *Title 6 and Title 9, Annotated Code of Maryland, and COMAR 29.06.01. The State Fire Prevention Code is enforced by the State Fire Marshal or authorized fire official.*

(5) *Chapter 10.* Add note to Section 1001.1 General: Means of egress requirements of Chapter 10 may be concurrently covered in the State Fire Prevention Code, Public Safety Article, §§6-101—6-602] *Title 6, Annotated Code of Maryland, and COMAR 29.06.01. The State Fire Prevention Code is enforced by the State Fire Marshal or authorized fire official.*

(6)—(11) (text unchanged)

(12) [Chapter 34.] Any rehabilitation work undertaken in an existing building as defined in COMAR 9.12.58 shall comply with the requirements of Maryland Building Rehabilitation Code set forth in COMAR 09.12.58.

(13) *Modify Section 308.5.1 Classification as Group E. At the end of Section 308.5.1, add “Exception: A childcare facility may be classified as I-4 when the facility is classified as a day care occupancy under the State Fire Prevention Code.”*

(14) *Modify Section 406.2.7 Electric vehicle charging stations and systems. Delete “Accessibility to electric vehicle charging stations shall be provided in accordance with Section 1107.”*

(15) *Modify Section 411.5 Puzzle room exiting. Delete item 3 and replace with “3. All exits and exit access doors from each puzzle room shall be open and readily available upon activation by the automatic fire alarm system, automatic sprinkler system, a manual control at a constantly attended location and shall have a readily accessible control located inside each puzzle room.”*

(16) *Modify Section 510.2 Horizontal building separation allowance with the following:*

(a) *Delete condition 4; and*

(b) *Condition 7. Replace “grade plane” with “lowest level of fire department vehicle access”.*

(17) *Modify Section 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more with the following:*

(a) *Replace section title with “System initiation in Group A occupancies with an occupant load of 300 or more; and*

(b) *Replace “1,000” with “300”.*

(18) *Modify Section 1004.8 Concentrated business use areas. Add “nail salons,” after “call centers,” and before “trading floors.”.*

PROPOSED ACTION ON REGULATIONS

C. Modifications to the International Residential Code for One- and Two-Family Dwellings:

(1) Chapter 1. *Scope and Administration:*

(a) Delete the Section 102.5 Appendices and replace with the following:

102.5 Appendices: [All the] *The provisions in the Appendices AF Radon Control Methods and AQ Tiny Houses are adopted as part of the IRC [except those in Appendices E, J, and L.];*

(b) *Add to Exception in Section 101.2 Scope the following:*

(i) *Exception: 2. Existing buildings undergoing repair, alterations or additions, and change of occupancy that comply with the Maryland Building Rehabilitation Code set forth in COMAR 09.12.58; and*

(ii) *Exception: 3. Maintenance of residential structures and premises shall comply with the Minimum Livability Code COMAR 09.12.54.*

(2) ENERGY. Chapter 11. ENERGY EFFICIENCY.

[a] Add to Section N1102.4.1.2 (R402.4.1.2): Except as provided for in the:

(i) Simulated Performance Path listed in Section N1105 (R405); and

(ii) Energy Rating Index Compliance Alternative in Section N1106 (R406);

(b) Modify Table N1105.5.2(1) (R405.5.2(1)) for Air Exchange Rate line item under the proposed design add “not to exceed 5 air changes per hour with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for Standard Reference Design” after “The measured air exchange rate”; and

(c) Add exception to Section N1106.2 (R406.2): The maximum of 5 air changes per hour tested in accordance with Section R402.4.1.2 may be used to determine the Energy Rating index score with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for ERI Reference Design.]

(a) *Modify Section N1101.13.15 Additional energy efficiency, add “4. For buildings complying with Section N1102.1.3.1, the structure shall also comply with the additional energy features in Section N1108.3.”*

(b) *Modify Section N1102.1.1 Above code programs. Add to the end of Section N1102.1.1, “Compliance with the Silver Rating of the ICC/ASHRAE 700-2015 National Green Building Standard as codified in §12-509(a) of the Annotated Code of Maryland shall be considered to be in compliance with this code.”*

(c) *Modify Section N1102.1.3:*

(i) *Add new “N1101.1.3.1 Maryland Alternative R-value. Assemblies with R-value of insulation materials equal to or greater than that specified in Table N1102.1.3.1 shall be an alternative to the U-factor in Table N1102.1 when combined with Section N1108.3. The provisions of Section N1108.2.1 shall be applied to the base model house to establish the reference base design establishing energy efficiency.”; and*

(ii) *Add the following table:*

Table N1102.1.3.1 (R402.1.3.1)

MD Alternative Insulation Minimum R-Values and Fenestration Requirements by Component^a

Climate Zone	Fenestration U-Factor ^{b, i}	Skylight ^b U-Factor	Glazed Fenestration SHGC ^{b, e}	Ceiling R-Value	Wood Frame Wall R-Value ^g	Mass Wall R-Value ^h	Floor R-Value	Basement ^{c, g} Wall R-Value	Slab ^d R-Value & Depth	Crawl Space ^{c, g} Wall R-Value
4 except Marine	0.30	0.55	0.40	49	20 or 13+5 ^h	8/13	19	10ci or 13	10ci, 4ft	10ci or 13
5	0.30 ^f	0.55	0.40	49	20 or 13+5 ^h	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4ft	15ci or 19 Or 13 + 5ci

For SI: 1 foot = 304.8 mm.

ci = continuous insulation.

^a R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.

^b The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestrations. Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.

^c "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13 & 5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.

^d R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs, as indicated in the table. The slab-edge insulation for heated slabs shall not be required to extend below the slab.

^e There are no SHGC requirements in the Marine Zone.

^f Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.

^g The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13 & 5" means R-13 cavity insulation plus R-5 continuous insulation.

^h Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.

ⁱ A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:

¹ Above 4,000 feet in elevation, or

² In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.

(d) Modify Section N1102.2.1 Ceilings with attic spaces with the following:

(i) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires R-49 insulation”; and

(ii) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires R-60 insulation”.

(e) Modify Section N1102.2.2 Ceilings without attics with the following:

(i) Add “or Section N1102.1.3.1” after “N1102.1.3” and before “requires insulation R-values greater than R-30”; and

(ii) Add “or N1102.1.3.1” after “N1102.1.3” and before “shall be limited to”.

(f) Modify Section N1108 Additional Efficiency Package Options:

(i) Add new Section “N1108.3 Maryland Alternative Additional Energy Efficiency Package Options. The provisions of this Section shall be applied as part of the prescriptive compliance path of Section N1102.1.3.1. Additional energy efficiencies from Table N1108.3 must be selected to meet or exceed a minimum percentage increase of 6% for climate Zone 4 and 6% for Climate Zone 5.”; and

(ii) Add the following table:

<i>Table N1108.3 (R408.3) Additional Energy Features¹</i>			
	Energy Feature	Percentage Increase for Climate Zone 4	Percentage Increase for Climate Zone 5
1	≥ 2.5% reduction in total UA ⁵	1%	1%
2	≥ 5% reduction in total UA ⁵	2%	3%
3	> 7.5% reduction in total UA ⁵	2%	3%
4	0.22 U-factor windows ⁵	3%	4%
5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner) ²	3%	2%
6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner) ²	3%	3%
7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace) ²	5%	7%
8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace) ²	4%	5%
9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.) ²	6%	6%
10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.) ²	5%	5%
11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.) ²	6%	8%
12	Fossil fuel service water heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%	2%
13	High performance heat pump water heating system option (Greater than or equal to 2.9 UEF electric service water-heating system.)	8%	6%
14	High performance heat pump water heating system. (Greater than or equal to 3.2 UEF electric service water-heating system.)	8%	6%
15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%	6%
16	More efficient HVAC distribution system. (100 percent of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.)	10%	12%
17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%	15%
18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing, 2.0 cubic feet per minute per 100 square feet of conditioned floor area. b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.)	1%	1%
19	2 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.) ³	10%	13%
20	2 ACH50 air leakage rate with balanced ventilation. (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.) ⁴	4%	5%
21	1.5 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.) ⁴	12%	15%
22	1 ACH50 air leakage rate with ERV or HRV installed. (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.) ⁴	14%	17%
23	Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 form each type with follow efficiencies. Refrigerator - Energy Star Program Requirements, Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher - Energy Star Program Requirements for Residential Dishwashers, Version 6.0 (01/29/2016), Clothes Dryer - Energy Star Program Requirements, Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer	7%	5%

PROPOSED ACTION ON REGULATIONS

	- Energy Star Program Requirements, Product Specification for Clothes Washers, Version 8.1 (02/05/2018)		
24	Renewable Energy Measure. ⁴	11%	9%

¹ Energy efficiency percentage increases as established by PNNL.
² For multiple cooling systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the cooling design load. For multiple heating systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the heating design load. Increases to minimum efficiency requirements are limited to one selection.
³ Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m3/min/watt) and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/ Moisture Transfer (LRMT).
⁴ Renewable energy resources shall be permanently installed that have the capacity to produce a minimum of 1.0 watt of on-site renewable energy per square foot of conditioned floor area. The installed capacity shall be in addition to any onsite renewable energy required by Section R404.4. To qualify for this option, one of the following forms of documentation shall be provided to the code official:
^a Substantiation that the RECs associated with the on-site renewable energy are owned by, or retired on behalf of, the homeowner.
^b A contract that conveys to the homeowner the RECs associated with the on-site renewable energy or conveys to the homeowner an equivalent quantity of RECs associated with other renewable energy.
^c Reduction in total UA from lines 1, 2 or 3 and higher performance windows from line 4 are limited to a single selection.

- (3)—(5) (text unchanged)
- (6) Modify Section P2904.1 by deleting “A backflow preventer shall not be required to separate a sprinkler system from the water distribution system, provided that the sprinkler system complies with all of the following:
 - (a) The system complies with NFPA 13D or Section P2904;
 - (b) The piping material complies with Section P2906;
 - (c) The system does not contain antifreeze; and
 - (d) The system does not have a fire department connection.”
- D. Modifications to the International Energy Conservation Code.
 - (1) (text unchanged)
 - (2) Add a note to Section [C405.2.4] C405.2.5 Specific Application Controls: For the new construction of hotels:
 - (a)—(b) (text unchanged)
 - (3) Add to Section R402.4.1.2: Except as provided for in the:
 - (a) Simulated Performance Path listed in Section R405;
 - (b) Energy Rating Index Compliance Alternative in Section R406;

- (4) Modify Table R405.5.2(1) for Air Exchange Rate line item under the proposed design add “not to exceed 5 air changes per hour with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for Standard Reference Design” after “The measured air exchange rate”; and
- (5) Add exception to Section R406.2: The maximum of 5 air changes per hour tested in accordance with Section R402.4.1.2 may be used to determine the Energy Rating index score with baseline of 3 air changes per hour in climate zones 4 and 5 maintained for ERI Reference Design.]
 - (3) Modify Section R102.1.1 Above code programs. Add to the end of Section R102.1.1, “Compliance with the Silver Rating of the ICC/ASHRAE 700-2015 National Green Building Standard as codified in §12-509(a) of the Annotated Code of Maryland shall be considered to be in compliance with this code.”
 - (4) Modify Section R401.2.5 Additional energy efficiency add “4. For buildings complying with Section R402.1.3.1, the structure shall also comply with the additional energy features in Section R408.3.”

- (5) Modify Section R402.1.3 R-Value Alternative with the following:
 - (a) Add new “R402.1.3.1 Maryland Alternative R-value. Assemblies with R-value of insulation materials equal to or greater than that specified in Table R402.1.3.1 shall be an alternative to the U-factor in Table R402.1.2 when combined with Section R408.3. The provisions of Section R408.2.1 shall be applied to the base model house to establish the reference base design establishing energy efficiency.”; and
 - (b) Add the following table:

Climate Zone	Fenestration U-Factor ^{b, i}	Skylight ^b U-Factor	Glazed Fenestration SHGC ^{b, e}	Ceiling R-Value	Wood Frame Wall R-Value ^g	Mass Wall R-Value ^h	Floor R-Value	Basement ^{c, s} Wall R-Value	Slab ^d R-Value & Depth	Crawl Space ^{c, g} Wall R-Value
4 except Marine	0.30	0.55	0.40	49	20 or 13+5 ^h	8/13	19	10ci or 13	10ci, 4ft	10ci or 13
5	0.30 ⁱ	0.55	0.40	49	20 or 13+5 ^h	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4ft	15ci or 19 Or 13 + 5ci

For SI: 1 foot = 304.8 mm.
ci = continuous insulation.
^a R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.
^b The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestrations. Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.

c. "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13 & 5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.

d. R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs, as indicated in the table. The slab-edge insulation for heated slabs shall not be required to extend below the slab.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.

g. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13 & 5" means R-13 cavity insulation plus R-5 continuous insulation.

h. Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.

i. A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:

¹ Above 4,000 feet in elevation, or

² In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.

(6) Modify Section R402.2.1 Ceilings with attic spaces with the following:

- (a) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires R-49 insulation"; and
- (b) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires R-60 insulation".

(7) Modify Section R402.2.2 Ceilings without attics with the following:

- (a) Add "or Section R402.1.3.1" after "R402.1.3" and before "requires insulation R-values greater than R-30"; and
- (b) Add "or R402.1.3.1" after "R402.1.3" and before "shall be limited to".

(8) Modify Section R408 Additional Efficiency Package Options:

- (a) Add new Section "R408.3 Maryland Alternative Additional Energy Efficiency Package Options. The provisions of this Section shall be applied as part of the prescriptive compliance path of Section R402.1.3.1. Additional energy efficiencies from Table R408.3 must be selected to meet or exceed a minimum percentage increase of 6% for climate Zone 4 and 6% for Climate Zone 5."; and
- (b) Add the following table: Table R408.3 Additional Energy Features:

	Energy Feature	Percentage Increase for Climate Zone 4	Percentage Increase for Climate Zone 5
1	≥ 2.5% reduction in total UA ⁵	1%	1%
2	≥ 5% reduction in total UA ⁵	2%	3%
3	> 7.5% reduction in total UA ⁵	2%	3%
4	0.22 U-factor windows ⁵	3%	4%
5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner) ²	3%	2%
6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner) ²	3%	3%
7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace) ²	5%	7%
8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace) ²	4%	5%
9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.) ²	6%	6%
10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.) ²	5%	5%
11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.) ²	6%	8%
12	Fossil fuel service water heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%	2%
13	High performance heat pump water heating system option (Greater than or equal to 2.9 UEF electric service water-heating system.)	8%	6%
14	High performance heat pump water heating system. (Greater than or equal to 3.2 UEF electric service water-heating system.)	8%	6%
15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%	6%
16	More efficient HVAC distribution system. (100 percent of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.)	10%	12%
17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%	15%
18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing, 2.0 cubic feet per minute per 100 square feet of conditioned floor area.	1%	1%

PROPOSED ACTION ON REGULATIONS

	<i>b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.)</i>		
19	<i>2 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.)³</i>	10%	13%
20	<i>2 ACH50 air leakage rate with balanced ventilation. (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.)⁴</i>	4%	5%
21	<i>1.5 ACH50 air leakage rate with ERV or HRV installed. (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.)⁴</i>	12%	15%
22	<i>1 ACH50 air leakage rate with ERV or HRV installed. (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.)⁴</i>	14%	17%
23	<i>Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 form each type with follow efficiencies. Refrigerator - Energy Star Program Requirements, Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher - Energy Star Program Requirements for Residential Dishwashers, Version 6.0 (01/29/2016), Clothes Dryer - Energy Star Program Requirements, Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer - Energy Star Program Requirements, Product Specification for Clothes Washers, Version 8.1 (02/05/2018)</i>	7%	5%
24	<i>Renewable Energy Measure.⁴</i>	11%	9%

¹ Energy efficiency percentage increases as established by PNNL.

² For multiple cooling systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the cooling design load. For multiple heating systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the heating design load. Increases to minimum efficiency requirements are limited to one selection.

³ Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m3/min/watt) and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/ Moisture Transfer (LRMT).

⁴ Renewable energy resources shall be permanently installed that have the capacity to produce a minimum of 1.0 watt of on-site renewable energy per square foot of conditioned floor area. The installed capacity shall be in addition to any onsite renewable energy required by Section R404.4. To qualify for this option, one of the following forms of documentation shall be provided to the code official:

^a Substantiation that the RECs associated with the on-site renewable energy are owned by, or retired on behalf of, the homeowner.

^b A contract that conveys to the homeowner the RECs associated with the on-site renewable energy or conveys to the homeowner an equivalent quantity of RECs associated with other renewable energy.

^c Reduction in total UA from lines 1, 2 or 3 and higher performance windows from line 4 are limited to a single selection.

E. (text unchanged)

TIFFANY P. ROBINSON
Secretary of Labor

Subtitle 12 DIVISION OF LABOR AND INDUSTRY

09.12.57 International Green Construction Code

Authority: Public Safety Article, §12-503(d), Annotated Code of Maryland

Notice of Proposed Action

[22-317-P-I]

The Secretary of Labor proposes to adopt new Regulations .01 and .02 under a new chapter, **COMAR 09.12.57 International Green Construction Code**.

Statement of Purpose

The purpose of this action is to incorporate by reference the first edition of the most recent version of the International Green Construction Code as required by Ch. 38 (SB528), Acts of 2022.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Mischelle F. Vanreusel, Acting Deputy Commissioner, Division of Labor and Industry, 10946 Golden West Drive, Suite 160, Hunt Valley, MD 21030, or call 410-767-2225, or email to dli.regulations+igcc@maryland.gov. Comments will be accepted through February 27, 2023. A public hearing has not been scheduled.

Editor’s Note on Incorporation by Reference

Pursuant to State Government Article, §7-207, Annotated Code of Maryland, the 2021 International Green Construction Code (IgCC), International Code Council, has been declared a document generally available to the public and appropriate for incorporation by reference. For this reason, it will not be printed in the Maryland Register or the Code of Maryland Regulations (COMAR). Copies of this document are filed in special public depositories located throughout the State. A list of these depositories was published in 50:1 Md. R. 7 (January 13, 2023), and is available online at www.dsd.state.md.us. The document may also be inspected at the office of the Division of State Documents, 16 Francis Street, Annapolis, Maryland 21401.

.01 Purpose.

The purpose of this chapter is to adopt the International Green Construction Code (IgCC).

.02 Incorporation by Reference.

The 2021 International Green Construction Code (IgCC), International Code Council, is incorporated by reference.

TIFFANY P. ROBINSON
Secretary Maryland Department of Labor

Subtitle 12 DIVISION OF LABOR AND INDUSTRY

09.12.58 Maryland Building Rehabilitation Code Regulations

Authority: Public Safety Article, §§12-1004 and 12-1007(a), Annotated Code of Maryland

Notice of Proposed Action

[22-321-P-I]

The Secretary of Labor proposes to amend Regulations .03 and .04 under **COMAR 09.12.58 Maryland Building Rehabilitation Code Regulations**.

Statement of Purpose

The purpose of this action is to incorporate by reference the first edition of the most recent version of the International Existing Building Code. This action also clarifies and simplifies references to the Maryland Accessibility Code and corrects a reference under definitions.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Mischelle F Vanreusel, Acting Deputy Commissioner, Division of Labor and Industry, 10946 Golden West Drive, Suite 160, Hunt Valley, MD 21030, or call 410-767-2225, or email to dli.regulations+IEBC@maryland.gov. Comments will be accepted through February 27, 2023. A public hearing has not been scheduled.

Editor’s Note on Incorporation by Reference

Pursuant to State Government Article, §7-207, Annotated Code of Maryland, the 2021 International Existing Building Code (International Code Council) has been declared a document generally available to the public and appropriate for incorporation by reference. For this reason, it will not be printed in the Maryland Register or the Code of Maryland Regulations (COMAR). Copies of this document are filed in special public depositories located throughout the State. A list of these depositories was published in 50:1 Md. R. 7 (January 13, 2023), and is available online at www.dsd.state.md.us. The document may also be inspected at the office of the Division of State Documents, 16 Francis Street, Annapolis, Maryland 21401.

.03 Incorporation by Reference.

A. The [2018] 2021 International Existing Building Code (International Code Council), as described in this chapter, is incorporated by reference.

B. The [2018] International Existing Building Code, as incorporated by reference under §A of this regulation and described

in this chapter, shall constitute the Maryland Building Rehabilitation Code.

C. Modifications to the [2018] International Existing Building Code.

(1) (text unchanged)

(2) Chapter 1. Delete Section 101.6 Appendices and replace with the following: 101.6 Appendices. The Appendices A [through] and C and Resource A are adopted as part of this code.

(3)—(5) (text unchanged)

(6) Chapter 3. Delete Section 306 and replace with the following: COMAR 09.12.53 shall be referenced for minimum requirements in providing accessibility and usability of buildings and facilities by individuals with disabilities.

[(6) Chapter 3. Delete Section 305.1 Scope and replace with the following: 305.1 Scope. The provisions of Sections 305.1 through 305.9 apply to maintenance, change of occupancy, additions and alterations to existing buildings including those identified as historic buildings. For additions, alterations, or change of use of existing buildings of four or more dwelling units, the alteration, change of use or addition to an existing residential building of four or more units shall comply as follows:

(a) Dwelling units shall comply by either:

(i) Containing at least one dwelling unit for every 25 dwelling units, or fraction of dwelling units, in the structure that is accessible and usable according to the requirements pertaining to dwelling units in ANSI A117.1-1986, with the complying dwelling units proportionally distributed throughout all types of units, or

(ii) Having dwelling units at the accessible levels comply with the requirements for Type B dwelling units.

(b) If the addition or alteration involves common area facilities and parking, it shall be accessible in accordance with the Maryland Accessible Code pertaining to covered multifamily dwellings.

(7) Chapter 3. Delete Exception to Section 305.4 Change of Occupancy.

(8) Chapter 3. Delete Exception 3 and Exception 4 to Section 305.6 Alterations.

(9) Chapter 3. Delete Section 305.8.8 Type B dwelling or sleeping units.]

.04 Definitions.

A. (text unchanged)

B. Terms Defined.

(1) (text unchanged)

(2) "Complex rehabilitation project involving multiple codes" means a rehabilitation project or portion of a project that involves two or more construction codes listed in Regulation [.11B] .06B of this chapter and is in:

(a)—(b) (text unchanged)

(3)—(4) (text unchanged)

(5) "International Existing Building Code (IEBC)" means the [2015] International Existing Building Code, as incorporated by reference under Regulation .03 of this chapter.

(6)—(8) (text unchanged)

TIFFANY P. ROBINSON
Secretary of Labor